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No. 10, Original

In the Supreme Court of the United States

OCTOBER TERM, 1953

STATE OF ARIZONA, COMPLAINANT

v.

STATE OF CALIFORNIA, PALO VERDE IRRIGATION DISTRICT, IMPERIAL IRRIGATION DISTRICT, COACHELLA VALLEY COUNTY WATER DISTRICT, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, CITY OF LOS ANGELES, CALIFORNIA, CITY OF SAN DIEGO, CALIFORNIA AND COUNTY OF SAN DIEGO, CALIFORNIA, DEFENDANTS;

UNITED STATES OF AMERICA, INTERVENER

PETITION OF INTERVENTION ON BEHALF OF THE UNITED STATES OF AMERICA

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UNITED STATES OF AMERICA, INTERVENER

PETITION OF INTERVENTION ON BEHALF OF THE UNITED STATES OF AMERICA

The United States of America, by HERBERT BROWNELL, JR., the ATTORNEY GENERAL, and by leave first had and obtained, files this Petition of Intervention in the above entitled cause, and alleges and declares as follows:

PART ONE: INTRODUCTION AND BACKGROUND

I

The State of Arizona, as complainant, has invoked the original jurisdiction of this Court pursuant to the provisions of Article III, Section 2, Clause 2, of the Constitution of the United States of America in regard to the rights and interests which it asserts in the Colorado River, a navigable, interstate stream. Named by the State of Arizona as defendants in the cause are the State of California together with seven municipal corporations or public corporations existing pursuant to the laws of the State of California, all of which claim rights to the use of water in the Colorado River, which are described with particularity in the answer of those defendants to Arizona's Bill of Complaint. Arizona's motion for leave to file the complaint was granted on January 19, 1953.[1]

There was filed with this Court on December 31, 1952, by the United States of America a motion for leave to intervene in the cause initiated by the State of Arizona. This Court by its order of January 19, 1953, granted that motion to intervene.[2]

The State of California with the other defendants named by the State of Arizona answered the latter's Bill of Complaint, averring, among

[1] *Arizona* v. *California, et al.*, 344 U. S. 919 (1952).
[2] *Arizona* v. *California, et al.*, 344 U. S. 919 (1952).

other things, certain affirmative defenses. Pursuant to leave granted by this Court,[3] the State of Arizona filed on August 28, 1953, its Reply to Defendants' Answer, to which defendants filed a Rejoinder on October 8, 1953.

II

The State of Arizona, by its Bill of Complaint, seeks to have quieted its title to the rights to the use of certain water of the Colorado River System, as against the defendants; to have construed in the manner which it alleges in its Bill of Complaint the Colorado River Compact, the Boulder Canyon Project Act,[5] related laws, contracts and documents. It likewise seeks ancillary injunctive relief.

III

The State of California, joined by the other defendants, answered the Bill of Complaint; denied the principal contentions of the State of Arizona; asserted affirmative defenses; and averred their interpretation of the Colorado River Compact, the Boulder Canyon Project Act, related laws, contracts and documents.

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[3] *Arizona* v. *California, et al.*, 345 U. S. 968 (1952).

[4] *Arizona* v. *California, et al.*, 345 U. S. 968 (1952).

[5] 43 U. S. C. 617, et seq.

IV

DESCRIPTION OF THE COLORADO RIVER

Important in regard to the dispute between the principal litigants in this proceeding are the physical phenomena of the Colorado River and the region traversed by it. Rising in the State of Colorado near the crest of the Continental Divide at an elevation of approximately nine thousand feet above sea level, it flows for a distance of 1,293 miles, draining portions of the States of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming.

In its course the Colorado River traverses a semiarid area of approximately 240,000 square miles in which agriculture can be successfully practiced only through artificial irrigation. However, marked geographical and climatological differences exist between the upper reaches of the river and the lower.

Nearly 1,000 miles of canyon separate the lands upon which water may be beneficially applied in the upper States of the Colorado River Basin and those upon which water may be beneficially used in the Lower Basin.[6] The Upper Basin area is comprised of high elevations resulting in shorter growing seasons and lower demands for water and, by reason of the conformation of the

[6] The Colorado River Compact, Article II (f), (g), defines "Upper Basin" and "Lower Basin" as follows:

"Upper Basin" means those parts of the States of Arizona,

area, has a relatively high return flow. In the lower reaches of the stream, large areas susceptible of irrigation are found. Due to the extreme aridity of climate and the long growing season, the demand for water for each acre irrigated is high. Works of great magnitude with commensurate costs are required to irrigate those lands. Historically, commerce was carried on in the navigable lower reaches of the stream. Moreover, certain upper reaches of the stream have been declared by this Court to be navigable.

V

In its course the stream in question flows through the Western half of Colorado, the State of its origin, and then through the State of Utah where it has its confluence with the Green River which rises in Wyoming. After crossing the common boundary of Utah and Arizona, it proceeds

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Colorado, New Mexico, Utah and Wyoming within and from which waters naturally drain into the Colorado River above Lee Ferry.

"Lower Basin" means those parts of the States of Arizona, California, Nevada, New Mexico and Utah within and from which waters naturally drain into the Colorado River System below Lee Ferry. Likewise included in the Upper and Lower Basins are all parts of the States located without the drainage area of the Colorado River System which are now or shall hereafter be beneficially served by waters diverted from the System above or below Lee Ferry.

"Lee Ferry" means a point on the main stream of the Colorado River a short distance below the common boundary of the States of Utah and Arizona.

in a south and westerly direction to a point where it forms the boundary between the State last mentioned and Nevada. For a distance of 145 miles, it separates the two States. Thereafter, for 235 miles it constitutes the boundary between Arizona and California. For 688 miles, more than half its length, the Colorado River flows in or upon the boundary of the State of Arizona.

VI

The Colorado River for a distance of sixteen miles constitutes the international boundary between the United States of America and the United Mexican States. The stream thence flows for a distance of 75 miles across Mexico where it empties into the Gulf of California.

VII

THE HISTORICAL NEED FOR SETTLEMENT OF THE CONFLICT BETWEEN THE BASINS

Shortly after the turn of the present century the claims to rights to the use of water in the natural flow of the Lower Basin of the Colorado River exceeded the available supply during the later summer months, with the attendant loss of crops due to the shortage of irrigation water. By way of contrast, early spring floods intermittently caused severe damage. Conservation of the run-off of the stream in the Lower Basin in high water periods, through regulatory dams and im-

pounding reservoirs, was essential. That development in the lower reaches of the river was impeded, however, by the need for an apportionment of the available supply of water between the Upper and Lower Basins of the river. Understandably, the States of the Upper Basin viewed with concern the possible loss of their rights to the Lower Basin should that development take place without some assurance that their future needs in the river would be protected.

VIII

THE "LAW OF THE RIVER"

To accomplish the required allotment and to insure the Upper Basin States that their rights would not be impaired by the development in the Lower Basin, the Colorado River Compact was formulated and signed November 24, 1922, by the several States of the Basin—Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming.[7] By specific Act of Congress[8] and Presidential Proclamation,[9] the Colorado River Compact became effective June 25, 1929, though Arizona at that time failed to ratify it. Thus from its inception until ratified by the State of Arizona, the Colorado River Compact was a Six-State Compact.

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[7] Appendix VII A, Colorado River Compact.

[8] Appendix VII B, Boulder Canyon Project Act, 43 U. S. C. 617, et seq.

[9] 46 Stat. 3000.

One of the conditions to the requisite Congressional consent to the Compact was that "the State of California, by act of its legislature, shall agree irrevocably and unconditionally with the United States and for the benefit of the States of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming, as an express covenant and in consideration of the passage of this act, that the aggregate annual consumptive use (diversions less returns to the river) of water of and from the Colorado River for use in the State of California, including all uses under contracts made under the provisions of this act and all water necessary for the supply of any rights which may now exist, shall not exceed four million four hundred thousand acre-feet of the waters apportioned to the lower basin States by paragraph (a) of Article III of the Colorado River compact, plus not more than one-half of any excess or surplus waters unapportioned by said compact, such uses always to be subject to the terms of said compact."[10] California complied with that condition.[11] It was not until February 24, 1944, that the State of Arizona ratified the Compact.

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[10] 43 U. S. C. 617c.

[11] Appendix VII C, Statutes and Amendments to the Codes of California, 1929 Extra Session, c. 16 "An act to limit the use by California of the waters of the Colorado River in compliance with the act of Congress known as the 'Boulder canyon project act' * * *."

IX

A. THE COLORADO RIVER COMPACT

By the Colorado River Compact there was apportioned in perpetuity from the Colorado River System to the Upper Basin and to the Lower Basin, respectively, the exclusive beneficial consumptive use annually of 7,500,000 acre-feet of water.[12] In addition, there was given to the Lower Basin the right to increase its beneficial consumptive use of water by 1,000,000 acre-feet annually.[13] The point of division between the Upper and the Lower Basins is Lee Ferry, 23 miles below the common boundary of the State of Arizona and the State of Utah.[14] Provision is likewise made in the Compact that under prescribed conditions water unapportioned by the Compact may be allocated at any time subsequent to October, 1963.[15]

X

B. THE UPPER COLORADO RIVER BASIN COMPACT

Subject to the provisions of the Colorado River Compact, on October 11, 1948, the Upper Colo-

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[12] An acre-foot of water is equivalent to the quantity of water that will cover 1 acre (43,560 square feet) 1 foot deep.

[13] See footnote 6, supra, for the definitions of the "Upper Basin" and the "Lower Basin" of the Colorado River.

[14] Appendix VII A, Colorado River Compact, Article II (e), (f), (g).

[15] Appendix VII A, Colorado River Compact, Article III (a), (b), (c), (f).

rado River Basin Compact was entered into by the States of Arizona, Colorado, New Mexico, Utah and Wyoming, by which there was apportioned in perpetuity among those States the consumptive use of water apportioned in perpetuity and available for use each year to the Upper Basin under the Colorado River Compact.

XI

All of the federal laws to which reference has been made in the preceding paragraphs were enacted, and virtually all of the contracts regarding the delivery of water alluded to hereafter in this pleading were entered into, prior to the effective date of the Treaty between the United States of America and the United Mexican States referred to below in paragraph XIII.

PART TWO: INTERESTS OF THE UNITED STATES OF AMERICA IN THE COLORADO RIVER SYSTEM

XII

There follows, in paragraphs XIII through XXX of this pleading, a description of the specific interests of the United States of America in the Colorado River System and in the resolution of the controversy between the plaintiff and the defendants. These interests fall into the following main categories:

A. The Treaty with Mexico (paragraph XIII).

B. Contracts for the delivery of im-

pounded water which depend for their proper performance on the meaning of the Colorado River Compact and the Boulder Canyon Project Act (paragraphs XV through XX).

C. The structures and projects constructed under or pursuant to the Reclamation Act of 1902, or comparable statutory authority, or international obligations, and in which the United States has a present, direct interest which will be affected by the resolution of the controversy between the parties. These are the Boulder Canyon Project, Davis Dam and appurtenant structures, Parker Dam and appurtenant structures, the Yuma Project, including Laguna Dam, the Gila Project, the Yuma Auxiliary Project, and the Salt River Project (paragraphs XIV, XXII, XXIII, XXIV).

D. The claims of the Indians and the Indian Tribes (paragraphs XXV through XXVII).

E. Other federal interests, including the generation of electricity, flood control and navigation interests and projects, fish and wildlife projects, and the public lands in that area (paragraphs XXI, XXVIII and XXIX).

Because of the adverse character of the claims asserted by the parties to this cause and their divergent construction of the fundamental laws upon which each predicates its respective claims, the United States of America is in grave doubt

in regard to its rights and obligations with respect to the waters of the Colorado River System and cannot safely exercise its rights, fulfill its responsibilities, or perform its duties, without great hazard to itself and to the parties themselves, in connection with the foregoing five categories of interests. For these reasons, it is important to the United States that the conflicts between the parties be resolved and that the rights and interests of the United States be protected in the course of that resolution.

XIII

TREATY WITH MEXICO

The United States of America in connection with the Colorado River has international obligations arising from its Treaty with the United Mexican States relating to the utilization of the waters of that stream, the Tijuana River and the Rio Grande River. That covenant was signed February 3, 1944, was ratified by the Senate of the United States of America on April 18, 1945, and by the United Mexican States on October 16, 1945. It was proclaimed by the President of the United States on November 27, 1945, and became effective November 8, 1945.[16] Pursuant to that Treaty, the United States of America, among other things, and subject to certain limitations, "guaranteed" to Mexico an annual quan-

[16] Treaty between the United States of America and the United Mexican States—See 59 Stat. 1219.

tity of 1,500,000 acre-feet of Colorado River water.

XIV

BOULDER CANYON PROJECT AND OTHER DEVELOPMENTS TO IMPOUND OR DIVERT THE WATERS OF THE COLORADO RIVER FROM THE MAIN CHANNEL OF THAT STREAM

Pursuant to the Boulder Canyon Project Act and to the Reclamation Act of 1902,[17] and acts amendatory of those acts or supplementary to them, and international obligations of the United States of America, the Secretary of the Interior undertook the construction of gigantic projects involving the expenditure of virtually one-half billion dollars. The objectives of the Boulder Canyon Project Act in connection with the development of the Colorado River in the Lower Basin are: the controlling of the floods, improving navigation, regulating the flow of the Colorado River, providing for storage, for the delivery of the stored waters for reclamation of public lands, the generation of electrical energy, and other beneficial uses.[18] In addition, certain of the structures are operated for the purposes, among others, of making possible the regulation of the waters of the Colorado River to meet the demands of Mexico under the Mexican Water

[17] Act of June 17, 1902, Ch. 1093, 32 Stat. 388, 43 U. S. C. 391.

[18] 43 U. S. C. 617.

Treaty. Included in that development of the Lower Basin of the Colorado River are the following components in the operation of which the United States has a direct and immediate interest, and which it owns and operates through the Department of the Interior: Hoover Dam, Davis Dam, Parker Dam, Imperial Dam, Laguna Dam. The United States also owns but does not operate the All-American Canal and Coachella Canal. Other structures on the main river are the Colorado River Aqueduct, which is owned and operated by the Metropolitan Water District of Southern California, a defendant in this cause, and the Palo Verde Weir, which is owned and operated by the United States of America, but is the means by which water from the Colorado River is diverted for use for the Palo Verde Irrigation District, a defendant in this cause. All those structures are more fully described in Appendix I A of this Petition.

XV

FEDERAL CONTRACTS FOR THE DELIVERY OF WATER IMPOUNDED BY HOOVER DAM

Pursuant to and in accordance with the authority vested in him by the Boulder Canyon Project Act, the Secretary of the Interior has entered into contracts with the defendants Metropolitan Water District of Southern California, the Imperial Irrigation District, Palo Verde Irrigation District and Coachella Valley County Water District for the delivery annually of

5,362,000 acre-feet of Colorado River water stored at Hoover Dam. A contract originally entered into with the defendant City of San Diego has been superseded by subsequent arrangement with the Metropolitan Water District of Southern California. Moreover, though the defendant City of Los Angeles does not have a contract, it is a prime beneficiary of the contract between the United States of America and the defendant Metropolitan Water District of Southern California.[19]

XVI

Pursuant to an agreement dated August 18, 1931, the defendants Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, Metropolitan Water District of Southern California, City of Los Angeles, California, City of San Diego, California, and County of San Diego, California, entered into an agreement "Requesting the Division of Water Resources of the State of California to Apportion California's Share of the Waters of the Colorado River Among the Various Applicants and Water Users Therefrom in the State, Consenting to Such Apportionments, and Requesting Similar Apportionments by the Secretary of the Interior of the United States."[20]

[19] Appendix IV D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, List of Water Contracts.

[20] Appendix VII D, Seven-Party Water Agreement, August 18, 1931.

The provisions of this covenant, generally referred to as the Seven-Party Agreement, relating to the respective priorities of those joining in it are set forth in full in each of the contracts referred to in paragraph XV. By it, the waters of the Colorado River available for use within the State of California under the Colorado River Compact and the Boulder Canyon Project Act are apportioned in amounts and in accordance with the priorities therein stipulated.

XVII

The United States of America, pursuant to the contracts above described and in accordance with the Seven-Party Agreement, delivers the waters impounded at Lake Mead for beneficial uses:[21]

1. To the Metropolitan Water District of Southern California for diversion at Parker Dam, through the Colorado River Aqueduct.

2. To the Palo Verde Irrigation District, at the Palo Verde Weir situated approximately 212 miles downstream from Hoover Dam.

3. To the Imperial Irrigation District and the Coachella Valley County Water District, at the Imperial Dam situated 303 miles below Hoover Dam.

[21] Lake Mead is the storage reservoir of Hoover Dam.

(The structures referred to in this paragraph, as well as other structures and projects on the main channel of the Colorado River in which the United States has an interest, are described in Appendix I A.)

XVIII

Exercising the authority vested in him by the Boulder Canyon Project Act, the Secretary of the Interior, on behalf of the United States, entered into a contract dated March 30, 1942, as amended January 3, 1944, with the State of Nevada for the delivery annually of 300,000 acre-feet of water.[22]

XIX

Exercising the authority vested in him by the Boulder Canyon Project Act, the Secretary of the Interior, on behalf of the United States, entered into a contract dated February 9, 1944, with the State of Arizona for the delivery annually of 2,800,000 acre-feet of water, subject to the terms and conditions prescribed in that contract. Subject to the contract last mentioned, the Secretary of the Interior likewise entered into a contract dated March 4, 1952, with the Wellton-Mohawk Irrigation and Drainage District for the delivery of water to the Gila Project in the State of Arizona (described below in paragraph XXIII).[23]

[22] Appendix IV B, C, List of Water Contracts; Appendix VI A and B.

[23] Appendix IV A, T, List of Water Contracts.

XX

The contracts which the Secretary of the Interior entered into as set forth in the preceding paragraphs XV through XIX provide for the delivery annually of 8,462,000 acre-feet of water stored at Hoover Dam. Contained in each of the contracts is a provision that the delivery of water by the United States will be from available storage, all to be in accordance with the Colorado River Compact and the Boulder Canyon Project Act. Because of the incorporation in these contracts of the limitations and provisions of the Boulder Canyon Project Act and the Colorado River Compact, it is essential that the United States know the proper interpretation of those provisions of the Act last mentioned and the Compact which are in dispute between the parties. As more particularly alleged in paragraphs XXXI through XXXIX below, Arizona and the defendants are in controversy as to the meaning of the limiting provisions of the Boulder Canyon Project Act and the Colorado River Compact, and the United States is therefore uncertain as to how much water it may properly deliver annually under the aforesaid contracts.

XXI

POWER CONTRACTS

The United States of America, pursuant to the Boulder Canyon Project Act and the Boulder

Canyon Project Adjustment Act,[24] has also entered into contracts for the sale of electricity generated through the use by the United States of Colorado River water at the power plant constructed and operated by the United States in connection with the Boulder Canyon Project. Contracts have likewise been entered into by the United States for the sale of electricity generated at Parker and Davis Dams through the use by the United States of Colorado River water.[25] For that reason, the United States has an additional interest in connection with the proper operation of the structures of the Boulder Canyon Project and the dams last mentioned.

XXII

YUMA PROJECT

The Yuma Project, situated in the States of Arizona and California, was constructed pursuant to the Reclamation Act of 1902 and acts amendatory thereof and supplementary thereto. Title to the principal project works is in the United States and those structures are operated and maintained by it.

Colorado River water for the Yuma Project is diverted through the All-American Canal. For that land situated in the State of California, turn-

[24] 54 Stat. 774.

[25] Appendix V, Tabulation of sources of electricity and those holding contracts for its purchase.

outs have been constructed in the All-American Canal. The lands of the Yuma Project situated in the State of Arizona receive Colorado River water through the All-American Canal by means of a turnout from that structure at a point approximately 15 miles from the point of diversion, which is known as Siphon Drop. (See the description of the All-American Canal in Appendix I A.) There, 2,000 c. f. s.[26] of water are diverted through the Siphon Drop Power Plant and approximately 800 c. f. s. are thence taken by siphon under the Colorado River for use in Arizona. The Yuma Project is more specifically described in Appendix I B of this Petition.

XXIII

GILA PROJECT

Subject to the provisions of the Boulder Canyon Project Act and the provisions of the Colorado River Compact, the United States of America undertook the construction of the Gila Project; the United States retains title to the principal project works which it operates and maintains. Colorado River water is delivered to that Project pursuant to the contract between the United States of America, the State of Arizona, and the Wellton-Mohawk Irrigation and Drainage District.[27] The following excerpt from the Congressional en-

[26] "c. f. s." is the measure of the number of cubic feet of water passing a given point in one second of time.

[27] Appendix IV T, List of Water Contracts.

actment authorizing the Gila Project defines its scope and purpose:

> That for the purpose of reclaiming and irrigating lands in the State of Arizona and other beneficial uses, the reclamation project known as Gila project, heretofore authorized and established under the provisions of the reclamation laws, the Act of June 16, 1933 (48 Stat. 195), and various appropriation Acts, is hereby reduced in area to approximately forty thousand irrigable acres of land (twenty-five thousand acres thereof situated on the Yuma Mesa and fifteen thousand acres thereof within the North and South Gila Valleys), or such number of acres as can be adequately irrigated by the beneficial consumptive use of no more than three hundred thousand acre-feet of water per annum diverted from the Colorado River, and as thus reduced is hereby reauthorized and redesignated the Yuma Mesa division, Gila project, and the Wellton-Mohawk division, Gila project, comprising approximately seventy-five thousand irrigable acres of land, or such number of acres as can be adequately irrigated by the beneficial consumptive use of no more than three hundred thousand acre-feet of water per annum diverted from the Colorado River, * * *.[28]

The Gila Gravity Main Canal serves the Gila Project in the State of Arizona. Its headworks

[28] Act of July 30, 1947, Public Law No. 272, 80th Cong., 1st Sess.

are situated on the Arizona side of the Imperial Dam described in Appendix I A. This Project is more particularly described in Appendix I C of this Petition. Water is also delivered through Gila Project works to the Yuma Auxiliary Project in Arizona.

XXIV

SALT RIVER PROJECT

The Salt River Project in the State of Arizona has its source of supply from the Salt River, a tributary of the Gila River. The project was undertaken pursuant to the Reclamation Act of 1902, and acts amendatory thereof and supplementary thereto. This Project is more particularly described in Appendix I D of this Petition. Certain of the structures comprising the Project have been financed by others; however, the United States has title to those and to the other principal structures of the Project. The structures of the Salt River Project are: Roosevelt Dam, Bartlett Dam, Horse Mesa Dam, Mormon Flat Dam, Stewart Mountain Dam, Cave Creek Dam, Horseshoe Dam and Granite Reef Diversion Dam.

CLAIMS FOR AND ON BEHALF OF THE INDIANS AND INDIAN TRIBES IN THE LOWER BASIN OF THE COLORADO RIVER IN THE STATES OF ARIZONA AND CALIFORNIA

XXV

It is provided in the Colorado River Compact that:

Nothing in this compact shall be construed as affecting the obligations of the United States of America to Indian tribes."[29]

XXVI

Headgate Rock Dam is a principal structure across the main channel of the Colorado River diverting water for the Colorado River Indian Reservation. On the Gila River is situated Coolidge Dam which impounds waters for diversion and use on the San Carlos Indian Project and for other uses. These structures are more particularly described in Appendix II B of this Petition.

XXVII

The United States of America, as trustee for the Indians and Indian Tribes, claims in the aggregate on their behalf rights to the use of water from the Colorado River and its tributaries in the Lower Basin of that stream in the States of Arizona and California as set forth in Appendix II A of this Petition.

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[29] Appendix VII A, Colorado River Compact, Article VII.

XXVIII

FISH AND WILDLIFE PROJECTS

The United States of America, in connection with the waters of the Colorado River, has international obligations stemming from conventions concluded between it and Great Britain,[30] and between it and Mexico,[31] having as their objective the conservation of wildlife. The United States of America, pursuant to those international conventions, has the duty to preserve, develop and replace natural wildlife habitat through the establishment and maintenance of wildlife refuges and management areas. Those wildlife refuges and management areas together with the claims in connection with them are set forth in Appendix III of this Petition.

XXIX

FLOOD CONTROL AND NAVIGATION.

Pursuant to the Boulder Canyon Project Act and related laws, Hoover Dam, Davis Dam and Parker Dam are operated, among other things, "for the purpose of controlling the floods, improving navigation and regulating the flow of the Colorado River, * * *." The waters impounded by those structures are administered in a manner which effectuates the Congressional intendment in regard to flood control and navigation.

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[30] 39 Stat. 1702.

[31] 50 Stat. 1311.

Other flood control activities of the United States of America involve the Gila River and its tributaries [32] and the Bill Williams River.[33]

XXX

GENERAL CLAIMS OF THE UNITED STATES OF AMERICA IN THE COLORADO RIVER SYSTEM IN THE LOWER BASIN

The United States of America asserts claims, as against the parties to this cause, of rights to the use of water in the Colorado River and its tributaries (a) for the purposes of, and which will yield quantities of water sufficient to satisfy the maximum legal demands for, the various projects and the components of which those projects are comprised, all as alluded to in this Petition or its appendixes, to the full capacity of the diversion, carrying, and storage structures described in this Petition and its appendixes; (b) to fulfill its obligations arising from its international treaties or conventions, and from its contracts to deliver water and electric power; (c) to fulfill the obligations emanating from its status as trustee for the Indians and Indian Tribes; and (d) to protect its interests in fish and wildlife, flood control, and navigation.

These claims of the United States are jeopardized because the aggregate of the claims of the present parties to this cause far exceeds the quantity of water apportioned to the Lower Basin

[32] House Document No. 331, 81st Cong., 1st Sess.
[33] House Document No. 625, 78th Cong., 2d Sess.

of the Colorado River by the Colorado River Compact, and a resolution of the controversy between the parties may therefore infringe upon the interests of the United States to its detriment. In addition, the United States is in doubt as to its obligations and responsibilities under its contracts, the Colorado River Compact, and the Boulder Canyon Project Act, as amended and supplemented, because the parties have put forth differing and inconsistent interpretations of significant portions of those documents which affect the rights, obligations, and responsibilities of the United States. See paragraphs XXXI through XXXIX below.

The United States of America also has claims throughout the States of Arizona and California in connection with the Colorado River and its tributaries for the use of the National Park Service and the Bureau of Land Management of the Department of the Interior, and the Forest Service of the Department of Agriculture. In the event those claims are in any way put in issue or jeopardized in this litigation, the United States of America reserves the right to assert them.

Due to the insufficient supply of water apportioned to the Lower Basin by the Colorado River Compact to meet the aggregate of the adverse claims of all parties to this cause, there is a pressing need for a decree by this Court declaring, determining, confirming and quieting the title of all parties to their respective rights and interests in and to the waters of the Colorado

River. Absent such a decree by this Court, the protracted conflict giving rise to this cause will continue to the detriment of all parties.

PART THREE: SPECIFIC RESPONSE OF THE UNITED STATES OF AMERICA TO THE PLEADINGS OF THE PARTIES

XXXI

The United States of America, in response to the Bill of Complaint of the State of Arizona, the answer of the defendants to the Bill of Complaint, the reply of the State of Arizona to the defendants' answer, and defendants' rejoinder to Arizona's reply, makes the following additional allegations, averments and denials:

(a) The United States of America alleges that its treaties and international conventions alluded to above are legal and enforceable obligations assumed by the United States of America and binding upon itself and all parties to this cause; that the Colorado River Compact is a valid and binding covenant among all of the States in the Colorado River Basin; that the Reclamation Act of 1902 and acts amendatory thereof and supplementary thereto, the Boulder Canyon Project Act and the Boulder Canyon Project Adjustment Act and all supplemental legislation, both Federal and State, are valid and enforceable enactments pursuant to which the parties to the cause have received benefits; that each and every contract entered into by the United States of America

involving the use and delivery of water or electric power pursuant to the aforesaid compacts and legislation are valid, binding covenants constituting the measure of the rights of the parties to the extent that they are reflected by those covenants.

(b) The United States of America denies each and every allegation of the parties to the cause in their respective pleadings with reference to these treaties, conventions, compacts, documents, laws and contracts which in any way contravenes, contests, or challenges the validity of them or any provision or provisions of them; admits that the excerpts in the pleading from the laws, compacts, contracts and documents are correct as alleged, but for greater clarity and certainty in connection with each, refers to the laws, compacts, contracts and documents themselves.

XXXII

The United States of America, in response to paragraphs VII and XXII of the Bill of Complaint (which set forth the principal questions which the State of Arizona petitions this Court to decide), to paragraph 53 of the Traverse in the Answer of Defendants, to paragraph 8 of the First Affirmative Defense, to the corresponding paragraphs of the Reply of Arizona to the Defendants' Answer and the Rejoinder of Defendants to Arizona's Reply, as well as to the other

portions of the pleadings relating to the interpretation of the Colorado River Compact, admits that a controversy exists between the State of Arizona and the defendants as to the interpretation, construction, and application of the Colorado River Compact, the Boulder Canyon Project Act and the California Limitation Act, all as alleged in those portions of the pleadings.

1. By way of further response, the United States of America refers to the inquiry presented in subdivision (1) of paragraph XXII of the Bill of Complaint, which is as follows: "Is the water referred to and affected by Article III (b) of the Colorado River Compact apportioned or unapportioned water?" The State of Arizona avers that the waters in question are apportioned and that by reason of the Boulder Canyon Project Act and the California Limitation Act the defendants are precluded from participating in the so-called Article III (b) water.

In paragraph 68 of their Traverse and in paragraph 27 of the First Affirmative Defense in their Answer, the defendants deny Arizona's contention respecting the interpretation to be placed upon the clause of the Colorado River Compact in question.

Respecting those diametrically opposed positions, the United States is informed and believes and therefore alleges that if the interpretation urged by the State of Arizona is declared by this

Court to be correct, there will accrue to that State the right to the beneficial consumptive use of virtually all of the water referred to in the aforesaid Article III (b) of the Colorado River Compact, or approximately 1,000,000 acre-feet of water annually; whereas if the contentions of the defendants are declared by this Court to be correct, the State of Arizona will be entitled to the right to the beneficial consumptive use of approximately 500,000 acre-feet of water annually under Article III (b) of the Compact with a commensurate increase in the right to the beneficial consumptive use of water to the defendants under Article III (b) of the Compact. The obligations of the United States under the contracts referred to in this Petition, the operation of the projects and structures likewise described in this Petition, as well as the nature, character and extent of the rights and interests of the United States of America in the Lower Basin of the Colorado River, depend upon the resolution of this controversy between the parties; the United States is therefore in doubt as to its duties and rights and needs the determination by this Court of this issue.

2. By way of further response to the above-mentioned paragraph XXII, the United States of America refers to the inquiry presented in subdivision (2) of paragraph XXII which is as follows: "How is beneficial consumptive use to be

measured?" The State of Arizona avers that the Colorado River Compact does not apportion water but rather apportions the beneficial consumptive use of water, further alleging that beneficial consumptive use is measured in the terms of man-made depletions to the main stream of the Colorado River.

In paragraph 68 of the Traverse of their answer, the defendants specifically deny the interpretation urged by the State of Arizona, alleging in substance (in paragraphs 8 and 9 of their First Affirmative Defense in their answer) that beneficial consumptive use as used in the Compact is to be measured by diversion of water less return flow to the river.

The United States of America is informed and believes and therefore alleges that the difference between the two methods of measuring beneficial consumptive use of water asserted by the parties involves approximately 1,000,000 acre-feet; that if this Court declares that the interpretation of the clause in question urged by the State of Arizona is correct, there will accrue annually to that State all or most of that approximately 1,000,000 acre-feet of water over that quantity the State would receive if the defendants' interpretation is declared by this Court to be correct; and should defendants' interpretation be declared by this Court to be correct, there will be an attendant increase annually to the defendants of that

quantity of water. The obligations of the United States under the contracts referred to in this Petition, the operation of the projects and structures likewise described in this Petition, as well as the nature, character and extent of the rights and interests of the United States of America in the Lower Basin of the Colorado River, depend upon the resolution of this controversy between the parties; the United States is therefore in doubt as to its duties and rights and needs the determination by this Court of this issue.

3. By way of further response, the United States of America refers to the inquiry presented in subdivision (3) of paragraph XXII which is as follows: "How are evaporation losses from Lower Basin main stream storage reservoirs to be charged?" The State of Arizona alleges that the losses amount to over 700,000 acre-feet of water annually and that such losses should be apportioned among the users from the main stream storage in the Lower Basin in the same proportion as the consumptive use of each is to the total consumptive use of such storage in the Lower Basin.

The defendants specifically controvert that allegation in paragraph 68 of their Traverse and in paragraph 27 of the First Affirmative Defense in their answer, denying that the quantities of water which they are entitled to have delivered to them by the United States of America are sub-

ject to reduction as a consequence of reservoir evaporation.

Regarding the extent of the evaporation losses to which reference is made in the inquiry in question, the United States of America is informed and believes and therefore alleges that the losses will be in excess of 900,000 acre-feet annually. The obligations of the United States under the contracts referred to in this Petition, the operation of the projects and structures likewise described in this Petition, as well as the nature, character and extent of the rights and interests of the United States of America in the Lower Basin of the Colorado River, depend upon the resolution of this controversy between the parties; the United States is therefore in doubt as to its duties and rights and needs the determination by this Court of this issue.

XXXIII

The United States of America avers that the aggregate of the claims to rights to the use of water in the Lower Basin of the Colorado River far exceeds the 8,500,000 acre-feet of water available to that Basin under the Colorado River Compact. Thus it is an imperative necessity to have finally resolved the questions propounded by the State of Arizona and the correlative inquiries presented by the defendants in connection with paragraph XXII of the Bill of Complaint.

Absent a determination by this Court in regard to each of the questions presented, the United States of America, in connection with its interests, obligations, and responsibilities alluded to above, is and will be in grave doubt and cannot safely exercise its rights or perform its duties relating to the projects and rights to the use of water above described without great hazard to itself and to the parties themselves, and therefore respectfully requests this Court to resolve the conflicts as to the meaning of the Compact to which reference has been made in paragraph XXXII above, to the end that there may be delivered to the respective parties the quantities of water to which they are legally entitled.

XXXIV

The United States of America, responding to Paragraph IX of the Bill of Complaint, particularly subdivisions (c) and (d), denies that Section 8 and Section 13 (b), (c) and (d) of the Boulder Canyon Project Act subject all of its rights to the provisions of the Colorado River Compact and in that connection refers to the Colorado River Compact itself for greater certainty and clarity, particularly Article VII of the Compact. The United States of America, in regard to the aforesaid Paragraph IX of the Bill of Complaint and to the Traverse of the defendants, paragraph 55, as well as other por-

tions of the pleadings heretofore filed, points to the conflict among the parties in regard to the interpretation to be placed upon the Boulder Canyon Project Act and avers that, in the absence of a determination by this Court in regard to that Act and the several controversial provisions of it, the United States of America is and will be in grave doubt and cannot safely exercise its rights and perform its duties in connection with its rights, responsibilities, and obligations respecting the Colorado River without grave hazard to itself and to the parties themselves and, therefore, respectfully requests this Court to resolve the conflict as to the Boulder Canyon Project Act, presented by the paragraphs of the pleadings to which reference has here been made.

XXXV

The United States of America, in response to Paragraph XI of the Bill of Complaint of Arizona and to the Traverse of the defendants, paragraph 57, the corresponding paragraph of Arizona's reply to the defendants' answer, as well as other relevant portions of the pleadings, admits that the Secretary of the Interior contracted for the delivery of Colorado River water in the quantities mentioned in that paragraph of the Bill of Complaint, and for greater clarity and certainty refers to the contracts themselves, which are described above and in Appendix IV;

denies the allegations respecting the validity of those contracts and in that regard refers to the conflict among the parties to the cause, and avers that, in the absence of a determination by this Court as to the validity and construction of the contracts in question, the United States of America is and will be in grave doubt and cannot safely exercise its rights, perform its duties, meet its responsibilities or fulfill its obligations respecting the Colorado River without great hazard to itself and to the parties themselves, and therefore respectfully requests this Court to resolve the conflict as to the validity and construction of these contracts, presented by the paragraphs of the pleadings to which reference has here been made.

XXXVI

The United States of America, in response to Paragraph XIII of the Bill of Complaint of Arizona and to the Traverse of the defendants, paragraph 59, the corresponding paragraphs of Arizona's reply, and other relevant portions of the pleadings, admits the ratification by the State of Arizona of the Colorado River Compact on February 24, 1944, and that the United States entered into a contract as alleged in Paragraph XIII of the Bill of Complaint; refers to the allegation, denied by the defendants, that the aforesaid contract does not apply to the Gila

River or its tributaries, but for greater clarity and certainty refers to the contract itself, which is described above; the United States of America avers that, in the absence of a construction by this Court of the contract alluded to in that paragraph of the Bill of Complaint, the United States is in grave doubt and cannot safely exercise its rights and perform its duties in connection with its rights, responsibilities and obligations respecting the Colorado River without great hazard to itself and to the parties themselves and therefore respectfully requests this Court to resolve the conflict as to this contract with Arizona, presented by the paragraphs of the pleadings to which reference has here been made.

XXXVII

The United States of America, in response to Paragraph XVIII of the Bill of Complaint, to paragraph 14 of the First Affirmative Defense of the defendants, to the Traverse of the defendants, paragraph 64, to the corresponding paragraphs of the reply of the State of Arizona to the defendants' answer, and to other relevant portions of the pleadings, refers to the allegation of the State of Arizona that there is no controversy which relates to the use of the waters of the Colorado River System by Indians or Indian Tribes and to the counter allegation of the defendants denying the assertions of the State of Arizona and declaring that all beneficial consump-

tive uses of water by Indian Tribes pursuant to obligations of the United States to such Tribes are chargeable to the beneficial consumptive uses available to the Basin under the Compact, and to the State in which such uses are situated, and to the allegations of the defendants that all beneficial consumptive uses in Arizona of Colorado River System water, whether by Indians or others, are chargeable to Arizona under its contract with the United States of America; makes reference to paragraph XXVII of this Petition, in which the rights of the Indians and Indian Tribes as asserted by the United States are set forth, and for greater clarity and certainty to the Colorado River Compact itself, particularly Article VII thereof, and likewise makes reference to the contract between the United States of America and the State of Arizona.

The United States of America denies each and every allegation of the paragraphs of the pleadings of the parties to which reference has here been made and alleges that the rights to the use of water of the Indians and Indian Tribes are in no way subject to or affected by the Colorado River Compact. Further in response to the allegations of the parties, the United States of America refers to its obligations to the Indians and Indian Tribes; to the conflicting claims of the parties over their respective rights to the use of water; to the fact that the aggregate of the

claims of the parties to this cause far exceeds the supply of water available under the Colorado River Compact to the Lower Basin of that river; and to the claims asserted by the parties adverse to the rights to the use of water in the Colorado River System of the Indians and Indian Tribes in the States of Arizona and California. The United States of America further alleges that the conflict among the parties to this cause directly and adversely affects the rights to the use of water in the Colorado River System of the Indians and Indian Tribes in the States of Arizona and California; and that until the respective rights of the parties to this cause and the rights of the Indians and Indian Tribes are determined, the United States of America will be in grave doubt and cannot exercise the claims which it asserts for itself and on behalf of the Indians and Indian Tribes or perform its duties in connection with those rights, responsibilities and obligations in regard to the Colorado River without great hazard to itself and to the parties themselves. Therefore the United States of America respectfully requests this Court to declare and determine the rights of the Indians and Indian Tribes in the Lower Basin of the Colorado River and to resolve the conflicts on this issue presented by the respective pleadings of the parties to this cause.

XXXVIII

Responding further to the allegations of the parties as set forth in the Bill of Complaint of the State of Arizona, the Answer of Defendants to Bill of Complaint, the Reply to Defendants' Answer by the State of Arizona, and the Rejoinder of Defendants to Complainant's Reply to Defendants' Answer, the United States of America:

a. Denies each and every argument, conclusion of law and allegation containing mixed conclusions of law and averments of fact alleged in the respective pleadings of the State of Arizona and the defendants;

b. Denies each and every allegation of fact in the respective pleadings of the State of Arizona and the defendants which is substantially at variance with or contrary to the facts as alleged in this Petition or in the appendixes of this Petition; each and every appendix referred to in this Petition is incorporated into it by reference and made a part of it.

c. Admits each and every other well-pleaded fact alleged by the State of Arizona and the defendants in their respective pleadings, except as to those facts which are expressly denied or are substantially at variance with the facts as herein alleged.

CONCLUSION AND PRAYER

XXXIX

In summary and conclusion, the United States of America alleges that the aggregate of the claims of the parties to this cause far exceeds the quantity of water available to the Lower Basin of the Colorado River under the Colorado River Compact; that the parties assert claims to rights to the use of water adverse to each other, and bring into question and allege rights adverse to the rights to the use of water and the interests, responsibilities, claims, and obligations of the United States of America in the Lower Basin of the Colorado River; that the parties likewise seek different interpretations of the several provisions of the Colorado River Compact, the Boulder Canyon Project Act, and related laws and documents by reason of which the United States is and will be in grave doubt and cannot safely exercise its rights and perform its duties in connection with the projects and rights of the United States above described without great hazard to itself and to the parties themselves.

WHEREFORE, the United States of America respectfully prays this Court

(1) To adjudge and declare the validity of the treaties and international conventions, compacts, laws, contracts and federal documents to which reference has been made

throughout this Petition and the pleadings of the parties;

(2) To interpret, construe, and resolve the conflicts which have arisen among the parties to this proceeding in connection with the laws, contracts, and documents referred to above;

(3) To quiet the title of the United States of America in and to each and every right to the use of water claimed and exercised by it, all as asserted in this Petition, including but not limited to those of its Indian wards, against the adverse claims of the State of Arizona and the above-named defendants.

And that the United States of America have such other and further relief as shall appear proper.

The United States also respectfully prays leave to amend this Petition of Intervention if that should hereafter become necessary or appropriate in the course of the proceedings herein.

HERBERT BROWNELL, JR.,
Attorney General.

DECEMBER 1953.

APPENDIXES

APPENDIX I

A. BOULDER CANYON PROJECT AND OTHER DEVELOPMENTS TO IMPOUND OR DIVERT THE WATERS OF THE COLORADO RIVER FROM THE MAIN CHANNEL OF THAT STREAM

Hoover Dam: This is the principal structure of the Lower Basin development impounding the waters of the Colorado River which comprise Lake Mead. It is situated in Black Canyon on the main channel of the Colorado River 325 miles above the Mexican border. The middle channel of the river at the site in question is the common boundary between the States of Nevada and Arizona.

This is the world's highest dam: a concrete arch, gravity type structure having a height of 726.4 feet and a hydraulic height of 575.8 feet. There have been constructed in connection with it two side-channel spillways with a capacity of 400,000 cubic feet of water per second of time.[1] The outlet works have a capacity of 91,000 c. f. s. The power plant discharge (17 turbines) is 30,560 c. f. s. The rating of the generators presently installed, including two small station-service units, is 1,249,800 kw.; ultimately the generator

[1] *Second foot:* A unit of measure of the rate of stream flow. It is the flow of one cubic foot (7.48 gallons) of water passing a given point per second of time; hereafter referred to as c. f. s.

rating installation will be 1,354,300 kw. Total storage capacity of Lake Mead is 32,359,000 acre-feet;[2] at elevation 1229, the maximum surface area is 162,700 acres.

Lake Mead has a maximum length of 115 miles and a maximum width of 8 miles.

Construction was initiated on Hoover Dam September 17, 1930 and water was first impounded on February 1, 1935. The first power was generated on September 11, 1936.

Water is pumped from Lake Mead to Boulder City and Henderson for municipal and industrial purposes; the average diversion is approximately 10,000 acre-feet annually.

Title to Hoover Dam is in the United States, and it is operated and maintained by the Department of the Interior.

Davis Dam: This structure is located 67 miles below Hoover Dam on the Main Colorado River and is directly west of Kingman, Arizona. The middle of the channel at the site of this structure is the common boundary between the States of Arizona and Nevada. This dam implements the regulation of the river by Hoover Dam. By express provision of the Treaty with the United Mexican States (Treaty Executive A, 78th Cong., 2d sess.; Protocol Executive A, 78th Cong., 2d sess. (59 Stat. 1219)), the United States of America was required to build Davis Dam to effect the regulation of the river provided for in the Treaty. Title to Davis Dam is in the United

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[2] *Acre-foot:* A unit of measure of volume. It is equivalent to the quantity of water that will cover 1 acre (43,560 square feet) 1 foot deep.

States and it is operated and maintained by the Department of the Interior.

The dam is an earth and rock fill structure with a bypass channel on the Arizona side of the spillway, outlets and power plant. The height of this structure is 200 feet and its hydraulic height is 138 feet. It has a spillway capacity of 192,000 c. f. s. with an outlet capacity of 60,000 c. f. s. The generating facilities are composed of five units with a total of 225,000 kw.

The Davis Reservoir has a total capacity of 1,820,000 acre-feet; at elevation 647 the surface area is 28,500 acres and the reservoir is 67 miles in length.

Construction was initiated on Davis Dam on July 29, 1942 and water was first impounded on January 17, 1950. The first power was generated on January 12, 1951.

Parker Dam: This structure is situated on the main channel of the Colorado River near Needles, California, 155 miles below Hoover Dam. The middle of the channel at the site of this dam is the common boundary line between the States of Arizona and California. It creates Havasu Lake and is the diversion point of the Colorado River Aqueduct of the Metropolitan Water District of Southern California. The waters impounded by Parker Dam are utilized to generate electricity.

Parker Dam is a concrete variable-radius arch structure with power plant intakes and penstocks through the abutments on the California end of the dam. The structural height of the dam is 320 feet and the hydraulic height is 75 feet. The overflow spillway is controlled by five 50 ft. x 50 ft. regulating gates. There has

been constructed in connection with it a power plant with four 30,000 kw. units for a total of 120,000 kw.

The total storage capacity of Havasu Lake is 717,000 acre-feet; at elevation 450 the surface area is 25,100 acres.

Construction of Parker Dam was initiated on October 1, 1934 and water was first impounded on June 29, 1938. The first power was generated on December 13, 1942.

The Metropolitan Water District of Southern California entered into a cooperative agreement for the construction of Parker Dam and the power plant. It receives a share of the power generated for use on the Colorado River Aqueduct and for resale. Title to Parker Dam is in the United States and it is operated by the Department of the Interior.

Water is pumped from Lake Havasu for municipal and industrial uses in the Southern California coastal areas.

Imperial Dam: This structure is situated on the main channel of the Colorado River 303 miles below Hoover Dam, and 18 miles above Yuma, Arizona. The middle of the channel at the site of the dam constitutes the common boundary between the States of Arizona and California. It is the diversion point for the All-American Canal and the Yuma Project (described in Appendix I B). It is likewise the point of diversion for the Gila Project in Arizona (described in Appendix I C).

Imperial Dam is a slab and buttress type concrete facility with a structural height of 31 feet at the overflow sections. The hydraulic height

is 23 feet. The overflow spillway has a capacity of 180,000 c. f. s. at elevation 191. Construction was initiated on Imperial Dam on January 15, 1936 and water was first diverted to the Imperial Irrigation District by means of it on September 11, 1939.

Title to Imperial Dam is in the United States and it is operated and maintained by the Department of the Interior.

Laguna Dam: This structure is situated approximately 308 miles below Hoover Dam, on the main channel of the Colorado River, and approximately 13 miles upstream from the City of Yuma, Arizona. The middle of the channel at that point is the common boundary between the States of California and Arizona. It is a rock filled weir with concrete surface. Its structural height is 43 feet and its hydraulic height is 10 feet. It was originally the diversion dam for the Yuma Project. Title to Laguna Dam is in the United States and it is operated and maintained by the Department of the Interior.

Construction of Laguna Dam was initiated on July 19, 1905 and water was first diverted by means of it on March 14, 1910.

All-American Canal System: Pursuant to the Boulder Canyon Project Act and acts amendatory thereof and supplementary thereto, the United States of America undertook the construction of the All-American Canal. That canal has its headworks on the California end of the Imperial Dam, described above. The headworks discharge Colorado River water into a concrete lined channel approximately 360 feet in width, which is divided into four channels directing

water into the desilting basins. These basins are adjacent to the California abutment of the Imperial Dam and consist of six rectangular basins each about 270 ft. x 770 ft. with a water depth of 12.5 feet. Each basin has a designed capacity of 2,000 c. f. s. Plans provide for the construction of two additional basins as needed.

The inifial capacity of the All-American Canal is 15,155 c. f. s. The canal has a width of 232 feet at normal water surface; a bottom width of 160 feet and a depth of 21 feet. The initial capacity of the canal remains unchanged for a distance of 15 miles to Siphon Drop at which point 2,000 c. f. s. can be delivered to the Yuma Project (described in Appendix I B through the Siphon Drop Power Plant. From that point, the capacity of the All-American Canal is 13,155 c. f. s. which is maintained for approximately 6 miles to Pilot Knob. At that point, the water may be discharged into the Colorado River through the Pilot Knob Wasteway or eventually through the Pilot Knob Power Plant. From Pilot Knob, the All-American Canal has a capacity of 10,155 c. f. s. to a point 15 miles from Pilot Knob, known as Drop No. 1. At that point, the Coachella Canal takes out. From there the main canal of the All-American Canal continues west, parallel to the common boundary between the United States of America and Mexico, for a distance of approximately 44 miles and reducing in capacity from 7,655 c. f. s. to 2,655 c. f. s.

Coachella Canal: From the above-mentioned takeout at Drop No. 1 of the All-American Canal, the Coachella Canal proceeds in a northwesterly direction. At the takeout, the Coachella Canal

has an initial capacity of 2,500 c. f. s. From the first turnout on the Coachella Valley County Water District, it has a capacity of 1,300 c. f. s. which is gradually reduced to its terminal point. The total length of the Coachella Canal is 123 miles. The canal is operated and maintained by the Coachella Valley County Water District.

Imperial Irrigation District alleges there are 900,000 acres of land within its boundaries and that it is committed to include an additional 90,000 acres. (Answer of Defendants to Bill of Complaint, page 47, paragraph 44 (c).) The total irrigable acreage which may be served by the Coachella Canal is 78,530 acres and the Coachella Valley County Water District asserts that within its boundaries there are 278,000 acres. (Answer of Defendants to Bill of Complaint, page 48, paragraph 44 (d).) In the year 1951, there were actually irrigated within the Imperial Irrigation District boundaries approximately 425,000 acres of land. In that same year, there were irrigated within the Coachella Valley County Water District 33,489 acres.

Construction of the All-American Canal was commenced in August 1934, and water was first delivered through the All-American Canal to the Imperial Irrigation District on October 13, 1940. Construction of the Coachella Main Canal was started in 1938.

The Colorado River Aqueduct: This structure diverts water impounded at Hoover Dam and at Parker Dam through headworks situated at the latter structure. The Aqueduct is 242 miles long; will have a maximum carrying capacity of 1,605 c. f. s. and is designed to carry all of the Colorado River water to which the Metropolitan Water

District of Southern California, the City of San Diego and the San Diego County Water Authority are entitled to receive under their contracts with the United States of America (i. e. 1,212,000 acre-feet annually). The City of San Diego and the San Diego County Water Authority receive the Colorado River water to which they are entitled under their contracts by means of the San Diego Aqueduct, which takes out of the Colorado River Aqueduct.

The Colorado River Aqueduct was financed and constructed entirely by the Metropolitan Water District of Southern California. Title to the aqueduct is in the Water District which operates and maintains it. However, the San Diego Aqueduct now built and the Second Barrel of that Aqueduct which is now being built, were financed and constructed entirely by the United States of America, and title is in the United States, which operates and maintains those aqueducts.

Palo Verde Weir: The United States of America delivers water to the Palo Verde Irrigation District pursuant to its contract with that District (Appendix IV D) at the Palo Verde Weir situated approximately 212 miles below Hoover Dam. Situated within the service area of the Palo Verde Irrigation District are 102,000 acres, of which 62,800 acres were irrigated in 1952. The weir was constructed and is operated and maintained by the United States of America which retains title to the structure.

B. DESCRIPTION OF YUMA PROJECT

There are 53,610 irrigable acres of land in the Yuma Project in the State of Arizona, of which

45,728 were irrigated with Colorado River water in the year 1951. Situated within the Yuma Project in the State of California are 15,124 irrigable acres, of which 9,305 acres were irrigated with Colorado River water in the year 1951.

Colorado River water for the Yuma Project is diverted through the All-American Canal. For that land situated in the State of California, turnouts have been constructed in the All-American Canal. The lands of the Yuma Project situated in the State of Arizona receive Colorado River water through the All-American Canal by means of a turnout from that structure at a point approximately 15 miles from the point of diversion, which is known as Siphon Drop. (See the description of the All-American Canal in Appendix I A.) There, 2,000 c. f. s. of water are diverted through the Siphon Drop Power Plant and approximately 800 c. f. s. are thence taken by siphon under the Colorado River for use in Arizona.

C. DESCRIPTION OF GILA PROJECT

The Gila Gravity Main Canal, with its headworks on the Arizona side of the Imperial Dam, described in Appendix I A, has an initial carrying capacity of 2,200 c. f. s. At about Mile 15 in the canal, the water is carried under the Gila River channel by siphon. On the south side of the river at approximately Mile 15 is situated the turnout for the Wellton-Mohawk Canal which has an initial capacity of 1,300 c. f. s. At Mile 18 is the terminal point of the Wellton-Mohawk Canal and the headworks of the Mohawk Canal which has an initial capacity of 900 c. f. s. The

Wellton Canal takes out of the Wellton-Mohawk Canal at approximately Mile 18; that structure has an initial capacity of 500 c. f. s. and a length of approximately 15 miles.

Respecting the size of the Gila Project, reference is made to the pertinent excerpt from the Act of July 30, 1947, Public Law No. 272, 80th Cong., 1st Sess., in paragraph XXIII of the Petition.

The Yuma Auxiliary Project, situated in the State of Arizona, comprised of approximately 3,000 acres of land, is served by the Gila Project works. (Act of June 13, 1949 (63 Stat. 172).)

D. DESCRIPTION OF SALT RIVER PROJECT

PRINCIPAL STRUCTURES

Roosevelt Dam: This structure is situated on the Salt River 30 miles northwest of Globe, Arizona. It is a rubble masonry, arch gravity type dam with a structural height of 280 feet and a hydraulic height of 225 feet. The overflow spillways at both abutments have a capacity of 150,000 c. f. s. At the toe of the dam there is a 7-unit power plant with a generating capacity of 15,400 kw.

The Roosevelt Reservoir impounds 1,398,430 acre-feet of water which is utilized to irrigate the Salt River Project.

Construction was initiated on Roosevelt Dam in March 1904 and water was first impounded in May 1909. The first power was generated on August 1, 1909.

Bartlett Dam: This structure is situated on the Verde River 36 miles northeast of Phoenix, Ari-

zona. It is a concrete multiple arch type dam with a structural height of 287 feet and a hydraulic height of 188 feet. It has an open channel spillway with a capacity of 175,000 c. f. s.

The reservoir has a maximum storage capacity of 179,480 acre-feet. The waters impounded by this reservoir are utilized to irrigate lands within the Salt River Project.

Construction was initiated on Bartlett Dam on August 12, 1936 and water was first impounded on February 5, 1939.

Horse Mesa Dam: This structure, which was constructed by the Salt River Valley Water Users' Association, is situated on the Salt River 43 miles northeast of Phoenix, Arizona. Title to the structure is in the United States of America. It is a concrete variable-radius arch type dam with a structural height of 300 feet and a hydraulic height of 266 feet. Over fall spillways at both abutments have a capacity of 150,000 c. f. s. Situated at the toe of the dam is a power plant with a capacity of 30,000 kw.

The capacity of the reservoir is 245,138 acre-feet and the waters are utilized to irrigate the Salt River Project.

Construction was initiated on Horse Mesa Dam in August 1924 and water was first impounded on May 27, 1927. The first power was generated in April 1927.

Mormon Flat Dam: This structure, which was constructed by the Salt River Valley Water Users' Association, is situated on the Salt River 37 miles northeast of Phoenix, Arizona. Title to this structure is in the United States of America. It is a concrete variable-radius arch type dam with a

structural height of 224 feet and a hydraulic height of 142 feet. It has an open channel spillway with a capacity of 150,000 c. f. s. Situated at the toe of the dam is a power plant with a generating capacity of 7,000 kw.

The capacity of the reservoir is 57,852 acre-feet and the waters impounded in this structure are utilized to irrigate the Salt River Project.

Construction was initiated on Mormon Flat Dam in February 1923 and water was first impounded on January 13, 1925. The first power was generated on May 19, 1926.

Stewart Mountain Dam: This structure, which was constructed by the Salt River Valley Water Users' Association, is situated on the Salt River 29 miles northeast of Phoenix, Arizona. Title to this structure is in the United States of America. It is a concrete variable-radius arch type dam with gravity abutments with a structural height of 207 feet and a hydraulic height of 116 feet. It has an open channel spillway with a capacity of 150,000 c. f. s. Situated at the toe of the dam is a power plant with a capacity of 10,400 kw.

The capacity of the reservoir is 69,765 acre-feet and the waters impounded in this reservoir are utilized to irrigate the Salt River Project.

Construction was initiated on Stewart Mountain Dam on October 1, 1928 and water was first impounded on February 22, 1930. The first power was generated on March 8, 1930.

Cave Creek Dam: This structure, which was constructed by the Salt River Valley Water Users' Association, is situated on Cave Creek, a tributary of the Salt River, 20 miles north of

Phoenix, Arizona. Title to this structure is in the United States of America. It is a concrete multiple arch dam with a structural height of 109 feet and a hydraulic height of 57 feet.

The capacity of the reservoir is 11,000 acre-feet and the waters impounded in this reservoir primarily for flood control are utilized to irrigate the Salt River Project.

Construction was initiated on Cave Creek Dam on February 16, 1922 and water was first impounded on March 4, 1923.

Horseshoe Dam: This structure, which was constructed by the Phelps-Dodge Corporation with Federal funds, is situated on the Verde River 55 miles northeast of Phoenix, Arizona. Title to the structure is in the United States of America. It is an earth and rock fill type dam, with a structural height of 194 feet and a hydraulic height of 145 feet. The spillway has a capacity of 250,000 c. f. s.

The capacity of the reservoir is 67,900 acre-feet. The waters impounded in this reservoir are utilized to irrigate the Salt River Project and also for municipal purposes by the City of Phoenix, Arizona.

Construction was initiated on Horseshoe Dam on November 30, 1943, and water was first impounded on November 16, 1945.

Granite Reef Diversion Dam: This structure is located on the Salt River 22 miles east of Phoenix, Arizona. It is a concrete weir and has a structural height of 29 feet and a hydraulic height of 18 feet.

Diversion Structures and Ditches—Salt River Project: The Arizona Canal serving part of the

Salt River Project north of the Salt River has its headworks at the north end of the above described Granite Reef Dam. It has an initial carrying capacity of 2,000 c. f. s. The Grand Canal which takes out of the Arizona Canal likewise serves an area of the project in question lying north of the Salt River.

The Salt River Project situated south of the Salt River is served by the South Canal, Eastern Canal, Consolidated Canal, Tempe Canal and Western Canal.

The headworks of the South Canal are situated on the south end of the Granite Reef Dam and the canal has an initial carrying capacity of 1,600 c. f. s.

In the year 1951, there were irrigated 214,000 acres of land within the Salt River Project, which has an ultimate maximum irrigable acreage of approximately 243,000 acres.

Appendix II

A. CLAIMS FOR THE INDIANS AND INDIAN TRIBES IN THE LOWER BASIN OF THE COLORADO RIVER IN THE STATES OF ARIZONA AND CALIFORNIA

Project or Reservation	Source of Water Supply	Annual Diversions (Acre Feet)	
		Present	Ultimate
MAIN STREAM, COLORADO RIVER, ARIZONA			
Colorado River Reservation			
Bottom Lands	Colorado River	195,600	660,000
Mesa Lands	do	0	72,000
Cocopah Reservation	do	600	3,100
Fort Mohave Reservation	do	0	55,000
Yuma Homesteads	do	2,450	2,350
Sub-Total, Main Stream, Arizona.		198,650	733,450

Project or Reservation	Source of Water Supply	Annual Diversions (Acre Feet)	
		Present	Ultimate
GILA RIVER BASIN, ARIZONA			
Ak Chin Reservation	Santa Cruz River	1,000	3,000
Camp Verde	Verde River	2,100	2,100
Fort McDowell Reservation	do	3,000	8,400
Fort Apache	White, Black and Cibique Rivers	11,500	30,000
Salt River Reservation	Salt and Verde Rivers	39,200	40,000
San Carlos Project	Gila River	370,000	603,300
Gila River Reservation (Non-Project)	Gila and Salt Rivers	25,570	27,000
San Carlos Reservation	Gila and San Carlos Rivers	6,000	9,000
San Xavier Reservation	Santa Cruz River	8,200	17,000
Sub-Total, Gila River Basin, Arizona		467,170	739,800
LITTLE COLORADO RIVER BASIN, ARIZONA			
Navajo Reservation (Small units)	Streams and washes	29,400	51,950
Winslow Project (Navajo Reservation)	Little Colorado		25,000
Hopi Reservation	do	3,300	3,600
Sub-Total, Little Colorado River, Arizona		32,700	80,550
MINOR TRIBUTARIES			
Hualapai Reservation	Big Sandy River	350	850
Havasupai Reservation	Cataract Creek	1,050	1,200
Kaibab Reservation	Spring	300	400
Sub-Total Minor Tributaries		1,650	2,450
MAIN STREAM, COLORADO RIVER, CALIFORNIA			
Colorado River Reservation	Colorado River	0	42,000
Fort Yuma Reservation	do	47,000	47,000
Coachella Valley Reservation	do	0	72,000
Fort Mohave Reservation	do	0	26,000
Chemehuevi Reservation	do	0	6,000
Total, Main Stream, California		47,000	191,000
Total—Arizona and California		747,179	1,747,250

Headgate Rock Dam: This structure is situated below Hoover Dam a distance of 169 miles. It was constructed by the United States which has title and operates and maintains its through the Department of the Interior, Bureau of Indian Affairs.

Water is diverted for use on the Colorado River Indian Reservation.

Coolidge Dam: This structure is situated on the Gila River 21 miles southeast of Globe, Arizona. Title resides in the United States of America. It is a reinforced concrete multiple dome structure rising 250 feet above the stream bed. Water was first impounded in the year 1928. Coolidge Dam creates a reservoir with a capacity of 1,285,000 acre-feet; with a generating capacity of 12,500 kw. The stored waters irrigate approximately 50,000 acres on the Gila River Indian Reservation and 50,000 acres of privately owned lands immediately adjacent to the Indian Reservation.

APPENDIX III

CLAIMS FOR FISH AND WILDLIFE PROJECTS

	Acre-feet annually
Havasu Lake National Wildlife Refuge situated on the main channel of the Colorado River	35,000
The Imperial National Wildlife Refuge on the main channel of the Colorado River	20,000
For wildlife management and conservation in Cibola Valley on the main channel of the Colorado River	15,000
Salton Sea Wildlife Refuge	6,000

APPENDIX IV

LIST OF CONTRACTS FOR THE DELIVERY OF WATER IMPOUNDED BY HOOVER DAM

A. Contract dated February 9, 1944, between the United States of America and the State of Arizona—Exhibit C of the Bill of Complaint of the State of Arizona.

B. Contract dated March 30, 1942, between the United States of America and the State of Nevada. Appendix VI A of this Petition.

C. Contract dated March 30, 1942, as amended by the contract of January 3, 1944, between the United States of America and the State of Nevada. Appendix VI B of this Petition.

D. Contract dated February 7, 1933, between the United States of America and the Palo Verde Irrigation District—Appendixes to the Answer of Defendants, Appendix No. 11.

E. Contract dated October 23, 1918, between the United States of America and the Imperial Irrigation District—Appendixes to the Answer of Defendants, Appendix No. 12.

F. Contract dated December 1, 1932, between the United States of America and the Imperial Irrigation District—Appendixes to the Answer of Defendants, Appendix No. 13.

G. Contract dated March 4, 1952, between the United States of America and the Imperial Irrigation District—Appendixes to the Answer of Defendants, Appendix No. 18.

H. Contract dated February 14, 1934, between the Imperial Irrigation District and the Coachella Valley County Water District—Appendixes to the Answer of Defendants, Appendix No. 14.

I. Contract dated October 15, 1934, between the United States of America and the Coachella Valley County Water District—Appendixes to the Answer of Defendants, Appendix No. 16.

J. Contract dated December 22, 1947, between the United States of America and the Coachella Valley County Water District—Appendixes to the Answer of Defendants, Appendix No. 17.

K. Contract dated April 24, 1930, between the United States of America and the Metropolitan Water District of Southern California—Appendixes to the Answer of Defendants, Appendix No. 19.

L. Contract dated April 24, 1930, as amended and supplemented by the contract dated September 28, 1931, between the United States of America and the Metropolitan Water District of Southern California—Appendixes to the Answer of Defendants, Appendix No. 21.

M. Contract dated February 15, 1933, between the United States of America and the City of San Diego—Appendixes to the Answer of Defendants, Appendix No. 23.

N. Contract dated February 15, 1933, as amended by the contract dated October 4, 1946, between the United States of America, the City of San Diego, the San Diego County Water Authority, and the Metropolitan Water District of Southern California—Appendixes to the Answer of Defendants, Appendix No. 24.

O. Contract dated March 14, 1947, between the City of San Diego and the Metropolitan Water District of Southern California—Appendixes to the Answer of Defendants, Appendix No. 26.

P. Contract dated February 10, 1933, between the United States of America and the Metropolitan Water District of Southern California for the construction and operation of Parker Dam—Appendixes to the Answer of Defendants, Appendix No. 22.

Q. Contract dated October 2, 1934, between the United States of America and the City of San Diego—Appendixes to the Answer of Defendants, Appendix No. 15.

R. Contract dated October 17, 1945, between the United States of America and the City of San Diego for aqueduct construction—Appendixes of Defendants, Appendix No. 25.

S. Contract dated April 1, 1952, between the United States of America and the San Diego County Water Authority for construction of second "barrel"—Appendixes to the Answer of Defendants, Appendix No. 27.

T. Contract dated March 4, 1952, between the United States of America and the Welton-Mohawk Irrigation and Drainage District.

APPENDIX V

TABULATION OF SOURCES OF ELECTRICITY AND THOSE HOLDING CONTRACTS FOR ITS PURCHASE

Hoover Dam

Private Utilities
- California Electric Power Company
- California Pacific Utilities Company
- Citizens Utility Company
- Southern California Edison Company

Municipalities
- City of Burbank
- City of Glendale
- City of Pasadena
- City of Los Angeles

State Governments
- Nevada

Public Authorities
- Metropolitan Water District

Federal Interdepartmental Sales

Parker-Davis System

Private Utilities
- Arizona Edison Company
- Central Arizona Light & Power Company
- Tucson Gas Electric Light & Power Company

State Government Utilities
- Gila Valley Power District
- Wellton Mohawk Operation Company
- Imperial Irrigation District
- Colorado River Commission of Nevada
- Arizona Power Authority
- Salt River Project Power District
- Yuma Irrigation District.

Federal Government Utilities
- Colorado River Indians
- San Carlos Indians
- Air Force
- Army

Residential and Domestic

Commercial and Industrial

Public Authorities

Federal Interdepartmental Sales

Yuma

Siphon Drop
Residential and Domestic
Commercial and Industrial
Public Authorities
Federal Interdepartmental Sales

APPENDIX VI

A. UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION

BOULDER CANYON PROJECT

Arizona-California-Nevada

Contract for Delivery of Water

1. THIS CONTRACT, made this 30th day of March, nineteen hundred forty-two, pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, all of which acts are commonly known and referred to as the Reclamation Law, and particularly pursuant to the Act of Congress approved December 21, 1928 (45 Stat. 1057), designated the Boulder Canyon Project Act, and acts amendatory thereof or supplementary thereto, between THE UNITED STATES OF AMERICA (hereinafter referred to as "United States"), acting for this purpose by Harold L. Ickes, Secretary of the Interior (hereinafter referred to as the "Secretary"), and the STATE OF NEVADA, a body politic and corporate, and its Colorado River Commission (said Commission acting in the name of the State, but as principal in its own behalf as well as in behalf of the

State; the term State as used in this contract being deemed to be both the State of Nevada and its Colorado River Commission), acting in pursuance of an act of the Legislature of the State of Nevada, entitled "An Act creating a commission to be known as the Colorado river commission of Nevada, defining its powers and duties, and making an appropriation for the expenses thereof, and repealing all acts and parts of acts in conflict with this act", approved March 20, 1935 (Chapter 71, Stats. of Nevada, 1935);

WITNESSETH THAT:

Explanatory Recitals

2. WHEREAS, for the purpose of controlling floods, improving navigation, regulating the flow of the Colorado River, providing for storage and for the delivery of stored waters for the reclamation of public lands and other beneficial uses exclusively within the United States, the Secretary, acting under and in pursuance of the provisions of the Colorado River Compact and the Boulder Canyon Project Act, and acts amendatory thereof or supplementary thereto, has constructed and is now operating and maintaining in the main stream of the Colorado River at Black Canyon that certain structure known as and designated Boulder Dam and incidental works, creating thereby a reservoir designated Lake Mead; and

3. WHEREAS, the State is desirous of entering into a contract for the delivery to it of water from Lake Mead:

4. NOW, THEREFORE, in consideration of the mutual covenants herein contained, the parties hereto agree as follows, to wit:

Delivery of Water by the United States

5. (a) Subject to the availability thereof for use in Nevada under the provisions of the Colorado River Compact and the Boulder Canyon Project Act, the United States shall, from storage in Lake Mead, deliver to the State each year at a point or points to be selected by the State and approved by the Secretary, so much water as may be necessary to supply the State a total quantity not to exceed One Hundred Thousand (100,000) acre-feet each calendar year. The right of the State to contract for the delivery to it from storage in Lake Mead of additional water is not limited by this contract. Said water may be used only within the State of Nevada, exclusively for irrigation, household, stock, municipal, mining, milling, industrial, and other like purposes, but shall not be used for the generation of electric power.

(b) Water agreed to be delivered to the State hereunder shall be delivered continuously as far as reasonable diligence will permit, but the United States shall not be obligated to deliver water to the State when for any reason, as conclusively but not arbitrarily determined by the Secretary, such delivery would interfere with the use of Boulder Dam or Lake Mead for river regulation, improvement of navigation, flood control, and/or satisfaction of perfected rights, in or to the waters of the Colorado River, or its tributaries, in

pursuance of Article VIII of the Colorado River Compact.

(c) The United States reserves the right, for the purpose of investigation, inspection, maintenance, repairs and replacement or installation of equipment or machinery at Boulder Dam, to discontinue temporarily or reduce the amount of water to be delivered hereunder, but so far as feasible the United States will give the State reasonable notice in advance of such temporary discontinuance or reduction. The United States, its officers, agents and employees shall not be liable for damages when, for any reason whatsoever, suspensions or reductions in delivery of water occur.

(d) This contract is for permanent service, and is made subject to the express condition that the State, upon request of the Secretary, shall submit in writing prior to January 1st of any year, an estimate of the amount of water to be required under this contract for the succeeding calendar year.

Receipt of Water by the State

6. The State shall receive the water to be diverted by or delivered to it by the United States under the terms hereof at the point or points of delivery to be hereafter designated as stated in the next preceding article hereof, and shall perform all acts required by law or custom in order to maintain control over such water and to secure and maintain its lawful use and proper diversion from Lake Mead. The diversion and conveyance of such water to places of use shall be without expense to the United States.

Measurement of Water

7. The water to be delivered to the State hereunder shall be measured at the point or points of diversion from Lake Mead, or at such point or points in any works used by the State to convey water from Lake Mead to its place or places of use as shall be satisfactory to the Secretary, and by such measuring and controlling devices or such automatic gauges or otherwise as shall be satisfactory to the Secretary. Said measuring and controlling devices, or automatic gauges, shall be furnished, installed, and maintained in manner satisfactory to the Secretary, by and at the expense of the State, but they shall be and remain at all times under the complete control of the United States. The State's authorized representative shall be allowed access at all times to said measuring and controlling devices or automatic gauges.

Record of Water Diverted

8. The State shall make full and complete written monthly reports as directed by the Secretary on forms to be supplied by the United States of all water delivered to or diverted by the State from Lake Mead. Such reports shall be made by the fifth day of the month immediately succeeding the month in which the water is diverted.

Charge for Delivery of Water

9. A charge of fifty cents ($0.50) per acre-foot shall be made for the diversion by or delivery of water to the State hereunder during the Boulder Dam cost-repayment period, subject to reduction

by the Secretary in the amount of the charge if studies show to his satisfaction that the charge is too high. Thereafter, charges shall be on such basis as may hereafter be prescribed by the Congress. Charges shall be made against the State only for the number of acre-feet of water actually delivered to or diverted by it from Lake Mead.

Billing and Payments

10. The State shall pay monthly for all water delivered to it hereunder, or diverted by it from Lake Mead, in accordance with the charge in Article nine (9) hereof established. The United States will submit bills to the State by the tenth day of each month immediately following the month during which the water is delivered or diverted and payments shall be due on the first day of the month immediately succeeding. If such charges are not paid when due, an interest charge of one per centum (1%) of the amount unpaid shall be added thereto as liquidated damages, and, thereafter, as further liquidated damages, an additional interest charge of one per centum (1%) of the principal sum unpaid shall be added on the first day of each succeeding calendar month until the amount due, including such interest is paid in full.

Refusal of Water in Case of Default

11. The United States reserves the right to refuse to deliver water to the State, or to permit water to be diverted by the State from Lake Mead, in the event of default for a period of more than twelve (12) months in any payment due or to

become due to the United States under this contract.

Inspection by the United States

12. The Secretary or his representatives shall at all times have the right of ingress to and egress from all works of the State for the purpose of inspection, repairs, and maintenance of works of the United States, and for all other proper purposes. In each contract made by the State for the redelivery of any part of the water agreed to be delivered to the State hereunder, it shall be provided, for the use and benefit of the United States, that the authorized representatives of the United States shall at all times have access to measuring and controlling devices, or automatic gauges, over the lands and rights of way of the contractee. The Secretary or his representatives shall also have free access at all reasonable times to the books and records of the State relating to the diversion and distribution of water delivered to or diverted by the State from Lake Mead with the right at any time during office hours to make copies of or from the same.

Rules and Regulations

13. There is reserved to the Secretary the right to prescribe and enforce rules and regulations governing the delivery and diversion of water hereunder. Such rules and regulations may be modified, revised, and/or extended from time to time after notice to the State and opportunity for it to be heard, as may be deemed proper, necessary, or desirable by the Secretary to carry out the true intent and meaning of the law and of

this contract, or amendments hereof, or to protect the interests of the United States. The State hereby agrees that in the operation and maintenance of its diversion works and conduits, all such rules and regulations will be fully adhered to.

Agreement Subject to Colorado River Compact

14. This contract is made upon the express condition and with the express understanding that all rights hereunder shall be subject to and controlled by the Colorado River Compact, being the compact or agreement signed at Santa Fe, New Mexico, November 24, 1922, pursuant to an Act of Congress approved August 19, 1921, entitled "An Act to permit a compact or agreement between the States of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming, respecting the disposition and apportionment of the waters of the Colorado River, and for other purposes", which compact was approved in section 13 (a) of the Boulder Canyon Project Act.

Priority of Claims of the United States

15. Claims of the United States arising out of this contract shall have priority over all others, secured or unsecured.

Contract Contingent Upon Appropriations

16. This contract is subject to appropriations being made by Congress from time to time of money sufficient to provide for the doing and performance of all things on the part of the United States to be done and performed under the terms hereof, and to there being sufficient money avail-

able in the Colorado River Dam fund for such purposes. No liability shall accrue against the United States, its officers, agents or employees, by reason of sufficient money not being so appropriated, or on account of there not being sufficient money in the Colorado River Dam fund for such purposes.

Effect of Waiver of Breach of Contract

17. All rights of action for breach of any of the provisions of this contract are reserved to the United States as provided in Section 3737 of the Revised Statutes of the United States. The waiver of a breach of any of the provisions of this contract shall not be deemed to be a waiver of any provision hereof, or of any other subsequent breach of any provision hereof.

Remedies Under Contract Not Exclusive

18. Nothing contained in this contract shall be construed as in any manner abridging, limiting, or depriving the United States or the State of any means of enforcing any remedy either at law or in equity for the breach of any of the provisions hereof which it would otherwise have.

Transfer of Interest in Contract

19. No voluntary transfer of this contract, or of the rights of the State hereunder, shall b made without the written approval of the Secretary; and any successor or assign of the rights of the State, whether by voluntary transfer, judicial sale, trustee's sale, or otherwise, shall be subject

to all the conditions of the Boulder Canyon Project Act, and also subject to all the provisions and conditions of this contract to the same extent as though such successor or assign were the original contractor hereunder; provided, that the execution of a mortgage or trust deed, or judicial or trustee's sale made thereunder, shall not be deemed a voluntary transfer within the meaning of this Article.

Notices

20. (a) Any notice, demand or request required or authorized by this contract to be given or made to or upon the United States shall be delivered, or mailed postage prepaid, to the Director of Power, United States Bureau of Reclamation, Boulder City, Nevada, except where, by the terms hereof, the same is to be given or made to or upon the Secretary, in which event it shall be delivered, or mailed postage prepaid, to the Secretary, at Washington, D. C.

(b) Any notice, demand or request required or authorized by this contract to be given or made to or upon the State shall be delivered, or mailed postage prepaid, to the Secretary of the Colorado River Commission of Nevada, Carson City, Nevada.

(c) The designation of any person specified in this article or in any such request for notice, or the address of any such person, may be changed

at any time by notice given in the same manner as provided in this article for other notices.

Officials Not To Benefit

21. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

Uncontrollable Forces

22. Neither party shall be considered to be in default in respect to any obligation hereunder, if prevented from fulfilling such obligation by reason of uncontrollable forces, the term "uncontrollable forces" being deemed, for the purposes of this contract, to mean any cause beyond the control of the party affected, including but not limited to inadequacy of water, failure of facilities, flood, earthquake, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, sabotage, and restraint by court or public authority, which by exercise of due diligence and foresight, such party could not reasonably have been expected to avoid. Either party rendered unable to fulfill any obligation by reason of uncontrollable forces shall exercise due diligence to remove such inability with all reasonable dispatch.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be executed the day and year first above written.

THE UNITED STATES OF AMERICA,
By ABE FORTAS,
Acting Secretary of the Interior.

STATE OF NEVADA, acting by and through its Colorado River Commission,
By E. P. CARVILLE, *Chairman.*
Attest:
ALFRED MERRITT SMITH,
Secretary.

COLORADO RIVER COMMISSION OF NEVADA,
By E. P. CARVILLE, *Chairman.* [SEAL]
Attest:
ALFRED MERRITT SMITH,
Secretary

Ratified and approved this 21st day of April 1943.

E. P. CARVILLE,
Governor of the State of Nevada.

Attest:
MALCOLM MCEACHIN [SEAL]
Secretary of State.

Approved as to form:

ALAN BIBLE.
Attorney-General of Nevada.

APPENDIX VI

B. UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

BOULDER CANYON PROJECT

Arizona-California-Nevada

Supplemental Contract for Delivery of Water

1. THIS SUPPLEMENTAL CONTRACT, made this 3rd day of January, nineteen hundred forty-four, pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, all of which acts are commonly known and referred to as the Reclamation Law, and particularly pursuant to the Act of Congress approved December 21, 1928 (45 Stat. 1057), designated the Boulder Canyon Project Act, and acts amendatory thereof or supplementary thereto, between THE UNITED STATES OF AMERICA (hereinafter referred to as "United States"), acting for this purpose by Harold L. Ickes, Secretary of the Interior (hereinafter styled "Secretary"), and STATE OF NEVADA, a body politic and corporate, and its Colorado River Commission (said Commission acting in the name of the State, but as principal in its own behalf as well as in behalf of the State; the term State as used in this supplemental contract being deemed to be both the State of Nevada and its Colorado River Commission), acting in pursuance of an act of the Legislature of the State of Nevada, entitled "An Act creating a commission to be known as the Colorado river commission of Nevada, defining its powers and

duties, and making an appropriation for the expenses thereof, and repealing all acts and parts of acts in conflict with this act," approved March 20, 1935 (Chapter 71, Stats. of Nevada, 1935);

WITNESSETH:

Explanatory Recitals

2. WHEREAS, under date of March 30, 1942, the parties hereto entered into a contract providing, among other things, for the delivery of water to the State each year, from storage in Lake Mead, subject to the availability thereof for use in Nevada under the provisions of the Colorado River Compact and the Boulder Canyon Project Act, so much water as may be necessary to supply the State a total quantity not to exceed One Hundred Thousand (100,000) acre-feet each calendar year, and it is now desired to amend said contract so as to provide for the delivery each calendar year of not to exceed an additional 200,000 acre-feet of water to the State;

3. NOW, THEREFORE, in consideration of the mutual covenants herein contained, the parties hereto agree as follows, to wit:

Delivery of Water by the United States

4. Article 5 (a) of the aforesaid contract of date March 30, 1942, is hereby amended to read as follows:

"Subject to the availability thereof for use in Nevada under the provisions of the Colorado River Compact and the Boulder Canyon Project Act, the United States shall, from storage in Lake Mead, deliver to the State each year at a point or

points to be selected by the State and approved by the Secretary, so much water, including all other waters diverted for use within the State of Nevada from the Colorado River system, as may be necessary to supply the State a total quantity not to exceed Three Hundred Thousand (300,000) acre-feet each calendar year. Said water may be used only within the State of Nevada, exclusively for irrigation, household, stock, municipal, mining, milling, industrial, and other like purposes, but shall not be used for the generation of electric power."

Modification of Prior Contract

5. Except as expressly herein amended, the aforesaid contract of date March 30, 1942, shall be and remain in full force and effect.

Effective Date of Supplemental Contract

6. This supplemental contract shall be of full force and effect immediately upon its execution for and on behalf of the United States.

Officials Not To Benefit

7. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have caused this supplemental contract to be executed the day and year first above written.

THE UNITED STATES OF AMERICA,
By HAROLD L. ICKES, *Secretary of the Interior.*
STATE OF NEVADA, acting by and through its Colorado River Commission,
By E. P. CARVILLE, *Chairman.*
Attest:
ALFRED MERRITT SMITH,
Secretary.
COLORADO RIVER COMMISSION OF NEVADA,
By E. P. CARVILLE, *Chairman.*
Attest:
ALFRED MERRITT SMITH,
Secretary.

Ratified and approved this 3rd day of January 1944.

E. P. CARVILLE,
Governor of the State of Nevada.

Attest:
MALCOLM MCEACHIN,
Secretary of State,
By MURIEL LITTLEFIELD,
Deputy.

Approved as to form:
ALAN BIBLE,
Attorney General of Nevada.

APPENDIX VII

A—The Colorado River Compact (Arizona's Bill of Complaint, Exhibit A).

B—The Boulder Canyon Project Act (Defendants' Appendixes to the Answer, Appendix No. 2).

C—The California Limitation Act (Defendants' Appendixes to the Answer, Appendix No. 3).

D—The Seven Party Priority Water Agreement (Arizona's Bill of Complaint, Exhibit B).

U. S. GOVERNMENT PRINTING OFFICE: 1933